

We Claim:

1. A purified polynucleotide or fragment thereof derived from a CS197 gene, wherein said polynucleotide is capable of selectively hybridizing to the nucleic acid of said CS197 gene and has at least 50% identity with a sequence selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2, and fragments or complements thereof; or at least 80% identity with a sequence selected from the group consisting of SEQUENCE ID NO 4, SEQUENCE ID NO 5, and complements thereof.

2. The purified polynucleotide of claim 1, wherein said polynucleotide is produced by recombinant techniques.

3. The purified polynucleotide of claim 1, wherein said polynucleotide is produced by synthetic techniques.

4. The purified polynucleotide of claim 1, wherein said polynucleotide comprises a sequence encoding at least one CS197 epitope.

5. A recombinant expression system comprising a nucleic acid sequence that includes an open reading frame derived from CS197 operably linked to a control sequence compatible with a desired host, wherein said nucleic acid sequence has at least 50% identity with a sequence selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2, SEQUENCE ID NO 3, SEQUENCE ID NO 4, SEQUENCE ID NO 5, and fragments or complements thereof.

6. A cell transfected with the recombinant expression system of claim 5.

7. A CS197 polypeptide having at least 50% identity with an amino acid sequence selected from the group consisting of SEQUENCE ID NO 16, SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and fragments thereof.

8. The polypeptide of claim 7, wherein said polypeptide is produced by recombinant techniques.

9. The polypeptide of claim 7, wherein said polypeptide is produced by synthetic techniques.

10. An antibody which specifically binds to at least one CS197 epitope,
5 wherein said CS197 epitope is derived from an amino acid sequence having at least 50% identity with an amino acid sequence selected from the group consisting of SEQUENCE ID NO 16, SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and fragments thereof.

10 11. A cell transfected with a nucleic acid sequence encoding at least one CS197 epitope, wherein said nucleic acid sequence is selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2, SEQUENCE ID NO 3, SEQUENCE ID NO 4, SEQUENCE ID NO 5, and fragments or complements thereof.

15 12. A method for producing a polypeptide comprising at least one CS197 epitope, said method comprising incubating host cells that have been transfected with an expression vector containing a polynucleotide sequence encoding a polypeptide, wherein said polypeptide comprises an amino acid sequence having at least 50% identity with an amino acid sequence selected from the group consisting of
20 SEQUENCE ID NO 16, SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and fragments thereof.

25 13. A method for producing antibodies which specifically bind to CS197 antigen, said method comprising administering to an individual an isolated immunogenic polypeptide or fragment thereof in an amount sufficient to elicit an immune response, wherein said immunogenic polypeptide comprises at least one CS197 epitope and has at least 50% identity with a sequence selected from the group consisting of SEQUENCE ID NO 16, SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and fragments thereof.

30 14. A method for producing antibodies which specifically bind to CS197 antigen, said method comprising administering to an individual a plasmid comprising a polynucleotide sequence which encodes at least one CS197 epitope derived from a polypeptide having an amino acid sequence selected from the group consisting of
35 SEQUENCE ID NO 16, SEQUENCE ID NO 17, SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and fragments thereof.

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15. A composition of matter comprising a CS197 polynucleotide or
fragment thereof, wherein said polynucleotide has at least 50% identity with a sequence
selected from the group consisting of SEQUENCE ID NO 1, SEQUENCE ID NO 2,
5 and fragments or complements thereof; or at least 80% identity with a sequence selected
from the group consisting of SEQUENCE ID NO 4, SEQUENCE ID NO 5, and
complements thereof.

16. A composition of matter comprising a polypeptide containing at least one
10 CS197 epitope, wherein said polypeptide has at least 50% identity with a sequence
selected from the group consisting of SEQUENCE ID NO 16, SEQUENCE ID NO 17,
SEQUENCE ID NO 18, SEQUENCE ID NO 19, SEQUENCE ID NO 20, and
fragments thereof.

15 ~~17. A gene, or a fragment thereof, which codes for a CS197 protein which
comprises an amino acid sequence with at least 50% identity with SEQUENCE ID NO
16.~~

~~18. A gene, or a fragment thereof, comprising DNA having at least 80%
20 identity with SEQUENCE ID NO 4 or SEQUENCE ID NO 5.~~

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C1
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C4